

SELECTING THE BEST LOCATION FOR YOUR U.S. MANUFACTURING PLANT

A resource guide for finding the optimal location that is cost effective, efficient and meets your operating requirements.



Selecting the Best Location for Your U.S. Manufacturing Plant

RESOURCE GUIDE

INTRODUCTION

Selecting the right location for your U.S. manufacturing plant is a complicated process. It is critical to have knowledge of the process, the stakeholders, the regulators, and the information you should consider in making this decision, to ensure nothing is missed that may otherwise cost you time and money during the site selection process or in the future. This handbook will provide you with a foundational understanding of site selection in the U.S. to guide you through the process and identify helpful resources.

THE IMPORTANCE OF “PROCESS” IN LOCATION SELECTION

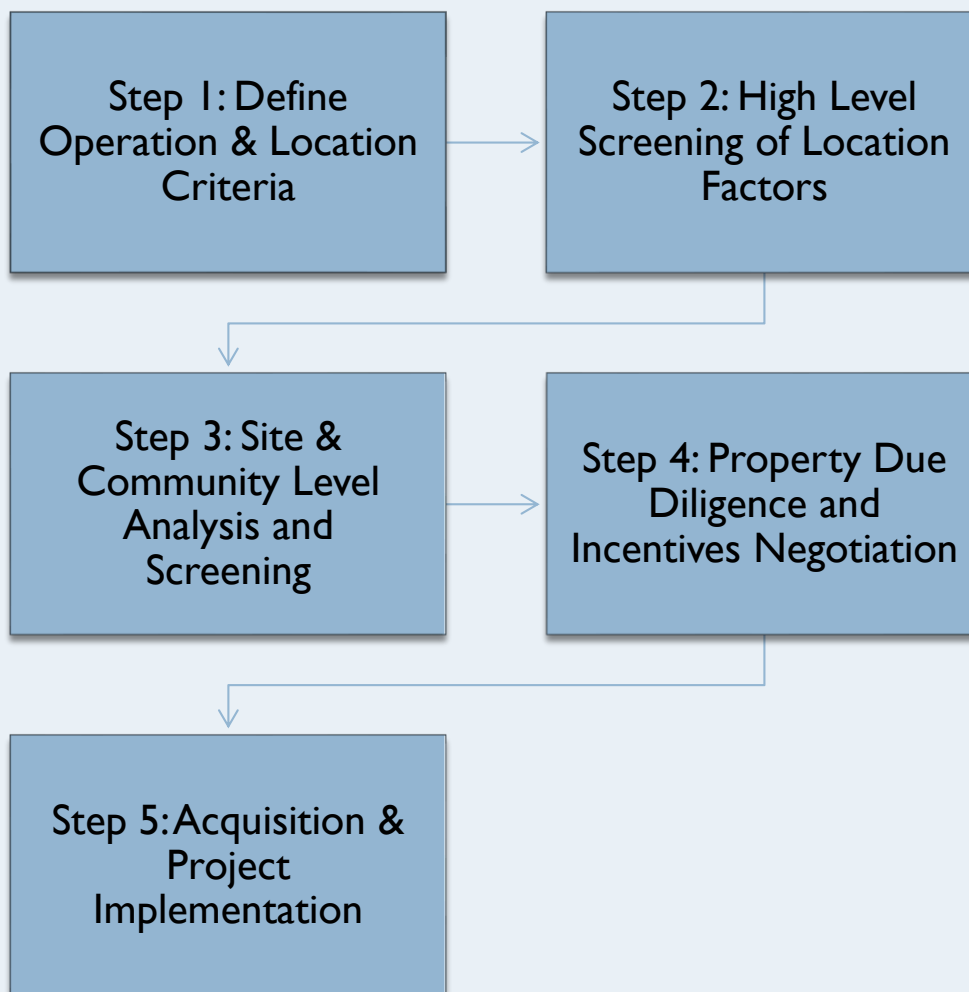
Every project is unique, but all require a deliberate, rigorous evaluation process that incorporates consideration of operating environments and costs to ensure a location can meet the company’s current and future needs. You will need to assess many diverse quantitative and qualitative factors – including labor quality, labor cost, utility capacity and costs, availability of real estate, tax climates, supply chain networks, natural and manmade risk considerations, incentives, transportation infrastructure, to name just a few – and you will need to establish an efficient methodology for evaluating these disparate factors to avoid the risk of “paralysis by analysis” due to the breadth of the assessment, and also to avoid team members developing tunnel vision around factors most tangible to their specific areas of the business.

The following information outlines a methodology that will lead you through an analysis of high-level (i.e., state and regional) factors before narrowing in on specific communities and properties. Careful progression through the analysis, beginning with a thorough inventory of location requirements, is critical to arriving at the right choice, as well as obtaining final approval by leadership/stakeholders of your selection. Following a deliberate location selection process will allow your project team and decision makers to feel confident in the final decision, avoiding last minute objections that can derail the project.

THE SITE SELECTION PROCESS

An efficient site selection process is really more of a site “elimination” process. Location screening and scoring criteria, beginning with high-level, large-geography considerations and then evolving into site-specific considerations, will guide you through a progressively shorter and shorter list of potential locations. While each project will require a customized approach and sequencing of analysis, the following methodology provides a foundation on which to build a rigorous, yet efficient, site selection process.

The Site Selection Process should be built on a methodology that helps you eliminate locations that don’t make sense and allow you to focus and spend more time on evaluating the locations that hold the most potential, such as the five-step methodology shown below.



Step 1: Define your facility and operational requirements

Before beginning a site selection project, it is critical to first define the proposed manufacturing facility and its operational requirements in order to evaluate location opportunities. Below is a list of criteria to guide this process:

LOCATION REQUIREMENTS CHECKLIST

- ☐ **Inbound Shipments** – Identify raw material sources, locations, annual volumes, number of shipments, modes of transportation
- ☐ **Outbound Shipments** – Identify customers, locations, annual volumes, number of shipments, modes of transportation
- ☐ **Labor Requirements** – Number and types of jobs, desired skill sets, wages and benefits, shifts and schedules, work ethic, and labor/management relationships
- ☐ **Building Requirements** – Size, configuration, breakdown of manufacturing/warehouse/office space needs, clear heights, truck docks, and other facility needs
- ☐ **Site Requirements** – Size, configuration to support vehicle circulation, on-site storage, employee and truck parking, and other project needs
- ☐ **Electric Power Requirements** – Electric power usage (demand and consumption by month), line size required, service type preference (primary vs secondary), service redundancy needs
- ☐ **Natural Gas Requirements** – Natural gas usage (consumption by month), line size required, service redundancy needs
- ☐ **Water Requirements** – Water usage (volume by day and month, peak usage by hour), line size required, redundancy needs, fire service needs
- ☐ **Wastewater Requirements** – Discharge volume (by day and month, peak volume by hour), line size required, wastewater effluent characteristics
- ☐ **Telecommunications Requirements** – Service requirements
- ☐ **Air Emissions** – Description and estimated volumes of air emissions by type
- ☐ **Community Preferences** – Community characteristics and amenities preferred, training resources available, highway proximity and infrastructure, community culture, sustainability aspects, other requirements
- ☐ **Project Investment** – Estimated value of land and building, equipment purchases and installation, other start-up costs
- ☐ **Incentives** – Desired types of incentives programs including tax credits, loans, grants, and other financing assistance
- ☐ **Project timeline** – Target real estate acquisition date, staffing ramp-up schedule, utility ramp-up schedule, equipment commissioning, production start date, etc.
- ☐ **Other Factors** – Other location criteria factors that are unique to the operation

Step 2: High Level Location Screening

Once requirements for the manufacturing plant are defined, the next step is to begin using the criteria to narrow the search, beginning with those that can be measured at a high (state- or regional-) level, allowing for the quickest possible elimination of areas that will not meet the company's needs. The following factors are typically reviewed at this stage in the process and weighted as appropriate:

HIGH LEVEL SITE SELECTION SCREENING FACTORS	
Transportation and Logistics	<ul style="list-style-type: none">☑ Inbound transportation costs to ship raw materials into the plant☑ Outbound transportation costs to ship finished products to customers☑ Transportation Service and Infrastructure Availability☑ Airport Accessibility
Labor	<ul style="list-style-type: none">☑ Labor Costs☑ Labor / Management Relations☑ Mandated Benefits☑ Population/Demographics☑ Concentration of Specified Labor Skills☑ Labor Training Programs
Utilities	<ul style="list-style-type: none">☑ Electric Power – availability and cost☑ Natural Gas – availability and cost☑ Water – availability and cost☑ Wastewater – availability and cost☑ Telecommunications – availability and cost
Taxes	<ul style="list-style-type: none">☑ State Corporate Taxes☑ Property Taxes – Real and Personal☑ Inventory Taxes
Real Estate	<ul style="list-style-type: none">☑ Availability of Sites and/or Buildings☑ Cost of Real Estate
Regulatory Environment	<ul style="list-style-type: none">☑ Business Climate☑ State Regulations☑ Environmental Regulations

Step 3: Site and Community Level Analysis and Screening

Once focused in on a small (3-10) list of potential regions (in at least two or more states) that meet minimum search criteria, the next step is to conduct a detailed evaluation of specific properties and communities to select the optimal location for your specific operational needs. The following factors should be evaluated and considered as part of this process:

COMMUNITY AND PROPERTY SPECIFIC SITE SELECTION FACTORS	
<u>Property Issues:</u> Evaluate Each Factor Relative to Each Specific Property	<input checked="" type="checkbox"/> Property Characteristics <input checked="" type="checkbox"/> Site Image <input checked="" type="checkbox"/> Transportation Infrastructure and Characteristics <input checked="" type="checkbox"/> Electric Power Service Characteristics <input checked="" type="checkbox"/> Water Service <input checked="" type="checkbox"/> Wastewater Service <input checked="" type="checkbox"/> Fire Protection <input checked="" type="checkbox"/> Natural Gas Service <input checked="" type="checkbox"/> Telecommunications Service <input checked="" type="checkbox"/> Employee Amenities <input checked="" type="checkbox"/> Zoning <input checked="" type="checkbox"/> Site Security <input checked="" type="checkbox"/> Environment - Manmade Hazards <input checked="" type="checkbox"/> Environment - Natural Hazards
<u>Community Issues:</u> Evaluate Each Relative to Each Specific Community	<input checked="" type="checkbox"/> Labor Force, Including Availability, Skillsets, and Labor Relations <input checked="" type="checkbox"/> Water and Wastewater Infrastructure <input checked="" type="checkbox"/> Community Development Trends <input checked="" type="checkbox"/> Industrial Support Services <input checked="" type="checkbox"/> Local Economy <input checked="" type="checkbox"/> Regulation <input checked="" type="checkbox"/> Sustainability <input checked="" type="checkbox"/> Community Support
<u>State and Local Incentives:</u> Evaluate For Each Short- Listed Location	<input checked="" type="checkbox"/> State Incentives <input checked="" type="checkbox"/> Local Incentives <input checked="" type="checkbox"/> Utility Service Incentives <input checked="" type="checkbox"/> Other Programs

Step 4: Property Due Diligence and Incentives Negotiation

Once the finalist locations are selected, it is prudent to conduct property due diligence to obtain commitments on utility services and other needs, as well as to ensure there are no surprises once the first shovel goes into the ground for development. At this phase, it may be appropriate to engage an engineering firm to assist with the technical review of the site attributes.

If considering a Greenfield site, you may need to conduct a number of site studies – e.g., Phase I Environmental Study, Geotechnical Analysis, Hydrologic Analysis, Site Survey, Archaeological Study, Endangered Species Analysis, and other technical site reviews pertaining to the development of the site. Some states and local communities have implemented “shovel ready” or “certified” site programs which typically mean that some or most of these due diligence studies have already been completed for the subject site and the information is available for review upon request. The information should be thoroughly reviewed, but if completed to a satisfactory standard of quality, these sites can save your project money and time in the development process.

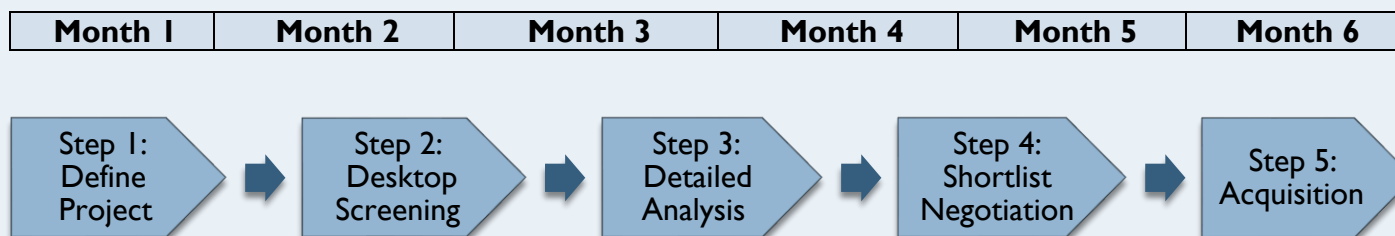
This is also the time to initiate formal incentives negotiation for your finalist locations. For maximum leverage, it is recommended you have at least two finalist locations in different states. As finalist locations, both options should be able to meet your operational needs, so at this step, you will want to prepare a detailed financial analysis for each finalist site and negotiate incentive programs that will help “close the deal” by providing upfront and/or ongoing cost savings and risk management. Additional information about incentives is provided below.

Step 5: Acquisition and Project Implementation

The final step is to acquire the property and begin detailed engineering of the facility and implementation of the project. Many construction timelines for new manufacturing operations are 12-18 months, or more, depending on the type of operation and the location.

SITE SELECTION TIMELINE

The timeline for completing a site selection effort for a new manufacturing plant will vary based on the size and the specifics of the project, but most can be completed through all the steps above between three and six months (although this can be shorter or longer depending on the project). A typical timeline is shown below:



**Note: Timeline may be shortened, or lengthened, depending on the specifics of the project.*

STATE AND LOCAL DEVELOPMENT INCENTIVES

Economic development incentive programs today are varied across the U.S. at the state and local levels. In general, programs can be grouped into the following categories:



Positioning for optimal incentives

Access to many state incentives programs in the U.S. is governed by what is known as a “but for” test, meaning the incentives statutes require documentation and/or attestation by the company that the incentives program had to be offered as a condition for the company to locate the project in that state. (In other words, “but for” the incentives, the project would not have gone forward in that location.) If a company moves forward with a project before the incentives are finalized, it risks losing its eligibility for incentives, as it can no longer fulfill the “but for” condition. The key triggering event may be signing a lease or purchase contract or making a location announcement.

Timing

It is important to understand the nuances in the incentives approval process and timeline. Every state has a different process and schedule for approving incentives offerings, traditionally ranging from 60 to even 90 days or longer depending on the size and complexity of the project. Today, in many states it is possible to expedite incentives packages, but it is critical to your overall project schedule to understand the approval timeline for your short-listed locations.

Program Terms

Although economic development agencies are excellent resources for incentives programs, it is important to understand that they are advocating for the state or community in which they represent. A company must exercise due diligence when reviewing incentive offers and agreements. A multitude of requirements will accompany incentive benefits, including job creation and investment obligations, as well as on-going commitments to continue operations at the new location. Reporting and compliance schedules must also be understood. Finally, incentive programs will often have “clawback” clauses, requiring repayment of all or a portion of the incentive benefits if the company is unable to meet and/or maintain its commitment.

Assess Incentive Values in the Context of Overall Cost Structures

Not all incentive programs are created equal. Some incentives which at face value seem lucrative may prove to have no value at all. Credits against income tax liability may outstrip a company’s ability to utilize the credits, particularly if they are not refundable or transferable. In a few locations, incentive programs may require you to pay prevailing wages (union wages) for construction, which could cause an increase in construction costs that would then dilute the value of the incentive. Finally, in some cases an incentives program is designed to abate or credit against a tax burden that may not exist in another location, merely leveling the playing field. It is imperative that you consider each location’s full operating cost and tax structure, and then evaluate the incentive program offerings in context of that model to understand the true value and impact of incentives on the site comparison.

A Checklist of Site Selection Project Do’s and Don’ts:

- ☑ DO give careful consideration to the composition of your internal project team. Be sure that relevant functional areas (such as Finance, Human Resources, Real Estate, Operations, etc.) have appropriate representation on the team.
- ☑ DO define your operational requirements – both immediate and long-term -- before evaluating potential alternatives.
- ☑ DO consider the overall cost environment.
- ☑ DO invest the time to assess labor skill availability.
- ☑ DO follow a well-designed elimination process that provides an efficient path forward, providing confidence that a rigorous process has been employed to arrive at the final decision.
- ☑ DO engage the assistance of needed advisors (such as construction managers, architects, engineers, incentives advisors, supply chain analysts, location consultants, etc.) early in the process. These professionals are able to deliver more value to your process when brought in during the conceptual phase.
- ☑ DON’T assume all desired location characteristics are “must haves.” Prepare your team with the concept that there is no such thing as the “perfect site” and that trade-offs will be required. Understand which criteria has room to be less than “perfect” without compromising the operational must haves.
- ☑ DON’T let your location search be driven by incentives; they are only one of many important factors.
- ☑ DON’T assume a site will have the needed utility capacities – conduct due diligence for upfront and long-term needs.
- ☑ DON’T sign a lease, hire employees for the new facility, or incur related expenses until your incentives are finalized, or you may jeopardize them. Allowable timing on this point will vary by incentive program.
- ☑ DON’T announce (internally or externally) your intention to locate in a specific community until the incentives are finalized.

SITE SELECTION RESOURCES

The following resources may be helpful to you during your site selection project:

Economic Development Agencies

Economic development agencies operate in the U.S. at the state, local and regional levels. Some are governmental organizations; others are public-private or even private entities that have been given responsibility to help attract and retain business investment and jobs to their respective states and communities. They may represent an entire state, a county, a municipality, or a region comprised of multiple counties and municipalities. They can be excellent initial resources of preliminary information, at no cost, including:

- Available properties - Most states and local communities maintain databases of available properties in their areas, many of which are available on their respective websites. However, these databases may not be complete and/or may not represent the most up-to-date information, so it is important not to rely solely on the information on a website without also reaching out to the appropriate economic development agency for assurance.
- Workforce – Local economic development agencies can typically provide data regarding the local labor force in their region or area, including types of skills available. In addition, they can also offer information on workforce training programs and resources within their communities.
- Utilities – Economic developers can connect you with appropriate utility service providers in the community for information on costs and capacities.
- State and local tax rates – Economic developers can provide specific rates for property taxes, income taxes, and other burdens in their states and local communities.
- Available incentives – Initially, an economic developer can provide you with an overview of available programs at the state and local level for their respective area. Once given more information about your project, they will be able to provide you with a proposal for incentives which would include specific dollar amounts in which your project would qualify.

However, there are also some limitations to the information available from the economic development organizations:

- Bear in mind, as mentioned previously, that economic development organizations do not have a fiduciary responsibility to your company. Rather, they are required to represent the best interest of the communities they represent. – i.e., to get you to choose their location for the lowest incentives.
- The information available from one economic development organization may not be available at the same level of detail or in the same format (date, geographic designation, source, etc.) versus the other regions you are considering, making an apples-to-apples comparison difficult, if not impossible.
- Economic development organizations are able to provide a wealth of data, but it will still be up to the company to distill, analyze and compare the information received, and to determine how to move forward based on an objective analysis of that data.

Site Selection and Incentives Consultants

A professional site selection consultant functions as a specialized management consultant, serving as the company's advocate and advisor, and assisting companies in formulating their site selection process. Consultants also manage the execution of that strategy including data collection, analysis, and field work. Most site selection consultants work closely with state and local economic development agencies as well as utilizing internal and subscription-based data services and other tools through an established methodology, such as described earlier under "The Site Selection Process." This expertise can be a valuable resource to your project to keep the search process objective, confidential, focused, on-schedule, and efficient, while also not draining your internal personnel resources.

Most site selection consultants work closely with state and local economic development agencies across geographies, as well as utilize internal and subscription-based data tools. This expertise can be a valuable resource to your project to keep the search process objective, confidential, focused, on schedule, and efficient.

Incentives advisory services are frequently – though not always – offered in conjunction with site selection consulting services. Ultimately, the two disciplines are most effective when deployed holistically, with the incentives process informing the site selection process at the appropriate juncture, and the site selection process identifying opportunities for enhanced incentive benefits. An incentives advisor will represent your interests, from initial due diligence to identify potential incentive programs to formally negotiating on your behalf. In addition to bringing experience to a process that most companies do not perform on a daily basis, they can also serve to protect your confidentiality, as well as provide a buffer between company officials and community leadership.

Site selection and incentives advisors may be compensated in a number of different ways including flat fee for service, hourly rates, and in some cases, a "performance-based" fee, similar to a commission for a real estate deal, based on the value of the incentives achieved. Be sure to fully understand the compensation structure proposed, particularly for a performance-based arrangement, and the value on which the fee will be assessed. Ultimately, the company will determine the fee structure that best serves its needs.

CONCLUSION

Selecting the optimal location for your U.S. manufacturing plant is a complex process. It is critical to approach the project with a well thought out methodology that incorporates all operational and financial aspects into the decision-making process. ***Don't be tempted to let incentives offerings drive the whole decision.*** At the end of the day, it is important to first find multiple location where the manufacturing facility can thrive, then allow incentives programs to close the deal and add value to the overall project start-up and ongoing operation.



ABOUT THE AUTHOR



Biggins Lacy Shapiro & Company, LLC (BLS & Co.) helps some of the world's largest corporations identify the best locations, negotiate incentives, secure development approvals and optimize energy strategies. Location Economics ®, the firm's trademarked multi-disciplinary approach, focuses on creating value for companies and their communities. Since its founding, BLS & Co. has obtained incentives valued in excess of \$2.3 billion for projects that in aggregate have committed to create over \$5.7 billion in capital investment and 55,000 new or retained jobs. BLS & Co. is headquartered in Princeton, N.J., with offices in New York, Chicago, Cleveland and the San Francisco Bay Area.

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